

**BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION
COMMENTS AND RECOMMENDATIONS OF THE
MINNESOTA DEPARTMENT OF COMMERCE
OFFICE OF ENERGY SECURITY
ENERGY FACILITY PERMITTING STAFF**

DOCKET NO. PL-9/PPL-07-360

Meeting Date: May 22, 2008Agenda Item # _____

Company: Enbridge Pipelines (Southern Lights) L.L.C., LSr Project

Docket No. **PUC Docket Number: PL-9/PPL-07-360**

In the Matter of the Application of Enbridge Pipelines (Southern Lights) L.L.C. for a Route Permit – LSr Pipeline

Issue(s): Should the Commission issue a route permit to Enbridge Pipelines for a 108 mile crude oil pipeline from the North Dakota-Minnesota border in Kittson County to Clearbrook in Clearwater County, Minnesota? If so, how should the designated route be defined and what conditions should be placed in the permit?

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Relevant Documents

Date Received

1. Summary of Testimony at the Public Hearings, Findings of Fact, Conclusions and Recommendation of the Administrative Law Judge March 24, 2008
2. Public Hearing TranscriptsNovember 27 and 28, 2007
and January 17, 2008
3. Pipeline Routing Permit Application and Environmental Assessment Supplement..... April 24, 2007
4. Enbridge Pipelines (Southern Lights) L.L.C. Exceptions to the Summary of Testimony at the Public Hearings, Findings of Fact, Conclusions and Recommendations of the Administrative Law Judge..... April 8, 2008

The enclosed materials are work papers of the Department of Commerce, Office of Energy Security, Energy Facility Permitting Staff. They are intended for use by the Public Utilities Commission and are based on information already in the record unless otherwise noted.

This document can be made available in alternative formats; i.e. large print or audio tape by calling (651) 201-2202 (Voice) or 1-800-627-3529 (TTY relay service).

Documents Attached

1. Pipeline Routing Permit Schematic-Minnesota Rules Chapter 7852
2. Overview Map of Enbridge Pipeline Projects
3. LSr and Alberta Clipper Workspace and Row Configuration
4. Enbridge LSr Master Permit List (Revised May 2, 2008)
5. Enbridge LSr Project Master List of Plans
6. Letter to Judge Lipman from Matt Langan, Minnesota Department of Natural Resources, dated February 8, 2008.
7. Proposed Pipeline Routing Permit
8. Appendix A: Agricultural Mitigation Plan and Appendix: Mitigative Actions for Organic Agricultural Land, March 2008
9. Appendix B: Environmental Mitigation Plan
10. Appendix C: Aerial Photos Depicting LSr Route (May 5, 2008)

(Note: Relevant documents and additional information can be found on eDockets (07-360) or the PUC Facility Permitting <http://energyfacilities.puc.state.mn.us/Docket.html?Id=19133>)

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I. STATEMENT OF THE ISSUES

Should the Commission issue a route permit to Enbridge Pipelines (Southern Lights) L.L.C. for a 108 mile, 20-inch diameter steel, high-pressure (1,260 pounds per square inch gauge) underground crude oil pipeline and associated aboveground facilities (e.g. pump stations, meter stations) that will begin at the North Dakota-Minnesota border in Kittson County and terminate at the Clearbrook Terminal near Clearbrook in Clearwater County, Minnesota?

If so, how should the designated route be defined in terms of width in which the proposed pipeline and associated facilities may be located and what conditions should be placed in the pipeline routing permit for right-of-way preparation, construction, cleanup and restoration?

If the PUC grants a Certificate of Need for the Enbridge Pipelines (Southern Lights) L.L.C., LSr pipeline project (PUC Docket No. PL9/CN-07-464), it must also consider the application of Enbridge Pipelines for a pipeline routing permit for the proposed project.

II. INTRODUCTION AND BACKGROUND

Enbridge Pipelines (Southern Lights) L.L.C. is proposing to bring Western Canadian crude oil to upper Midwest refineries by adding of new pipelines to its existing pipeline system in Manitoba, North Dakota, Minnesota, Wisconsin and Illinois. As part of this effort, Enbridge proposes to build three petroleum pipelines in Minnesota: the LSr, the Alberta Clipper and the Southern Lights Diluent. The first pipeline, the LSr, is being evaluated in this proceeding. The second two pipelines, the Alberta Clipper and the Southern Lights Diluent, are being evaluated under a separate docket, PL-9/PPL-07-361, and will be brought to the Commission for consideration at a later date.

In order to build large pipeline facilities in Minnesota, Enbridge must obtain two state authorizations from the Minnesota Public Utilities Commission. To obtain the first of these authorizations, a Certificate of Need, Enbridge must establish that there is a need for the proposed project. Second, Enbridge must obtain a pipeline routing permit, which authorizes construction of the pipeline in a specific route, with conditions in the permit to minimize human and environmental impacts.

Department of Commerce review of the need and routing proceedings were undertaken separately within the framework established by the Administrative Law Judge (ALJ). Review of the pipeline routing permit application took place pursuant to the requirements of Minnesota Statutes Chapter 216G and the Pipeline Route Selection Procedures in Minn. Rules 7852.0800 to 7852.1900. Attachment 1, in the Commissioner's packet, illustrates the procedural steps required by rule for the pipeline routing permit review process. All of these steps have been completed, except for the last one, which is a Commission decision to designate a route and issue a pipeline routing permit, if the Certificate of Need is granted.

LSr Project Description and Land Requirements

The LSr Project has a total length of approximately 313 miles of new 20-inch outside diameter steel pipe to transport crude oil. In Canada, the proposed LSr pipeline would involve construction of approximately 178 miles of new pipeline between Cromer, Manitoba, and the United States-Canada border near Neche, North Dakota.

The United States portion of the LSr Project-approximately 136 miles- will extend from the Canadian border in North Dakota to Enbridge's tank farm near Clearbrook, Minnesota.

The Minnesota portion of this project is approximately 108 miles long, and is proposed to cross portions of Kittson, Marshall, Pennington, Red Lake, Polk and Clearwater counties generally along or immediately adjacent to Enbridge's existing pipeline rights-of-way. See Attachment 2 in the Commissioner's packet. The LSr project will be capable of transporting approximately 186,000 barrels oil per day (bpd).

Enbridge received approval from the National Energy Board (NEB) of Canada in February 2008, for the construction of the LSr Project in Canada. The decision issued by the NEB can be found online at:

<https://www.neb-one.gc.ca/ll-eng/livelink.exe?func=ll&objId=499563&objAction=browse>.

The North Dakota Public Service Commission issued an Order on December 31, 2007, issuing a Certificate for Corridor Compatibility and Route permit.

Description of LSr Proposed Pipeline and Associated Facilities

The proposed LSr crude oil petroleum pipeline will have an outside diameter of 20 inches with a nominal wall thickness of 0.250 inches. The maximum allowable operating pressure will be 1,260 pounds per square inch gauge (psig). The proposed pipe design factor is API 5L Grade X70. Existing pumping facilities will be utilized at two Enbridge Station sites: one near Donaldson, Minnesota the other near Plummer, Minnesota. Thirteen mainline vales will be installed based on preliminary engineering design which complies with industry code, federal regulations and the operational needs of the Enbridge Mainline System

The only interconnections in Minnesota are at Enbridge's existing Clearbrook Tankage Facility with Enbridge Pipelines (North Dakota) L.L.C., (known as the Enbridge pipelines North Dakota System and formerly Portal Pipeline), Enbridge Energy, Limited Partnership and Minnesota Pipeline.

The proposed LSr Pipeline is expected to transport Light Crude Petroleum and Medium Crude Petroleum.

The annual design capacity of the proposed 20-inch pipeline will be 207,000 barrels per day. Annual capacity will be 186,000 barrels per day. Annual capacity, as defined in this paragraph, is the average daily rate over the course of one year, and equates to 90 percent of design

capacity. Currently there are no plans to add facilities to increase the initial capacity of the LSr Proposed Pipeline.

ROW and Workspace Requirements

Enbridge is proposing to place the LSr pipeline along side of its existing easements in most areas from the North Dakota/Minnesota border to Clearbrook. See Attachment 3 in Commissioner's packet.

In addition to new permanent 50 foot wide right-of-way, temporary work space is required to store excavated soil, store pipe sections as they are added to the line, move equipment and vehicles and to provide a safe work area to install the pipelines. Temporary work space requirements will vary in width, but are expected to be about 50 feet.

In addition to the permanent 50 foot wide easement or right-of-way and 50 feet of temporary construction space, extra temporary workspace is also needed at locations where the project will cross features such as waterbodies, roads, railroads, side slopes, and other special circumstances.

Extra temporary workspace will be necessary for construction activities including, but not limited to, staging equipment and stockpiling spoil material to facilitate construction of the pipeline. The table below provides the typical dimensions of the extra temporary workspace that will be used for construction of the project. These dimensions will vary depending on site-specific conditions. The dimensions provide width first, followed by length.

Typical Dimensions of Extra Temporary Workspaces for the Proposed Pipeline	
Feature	Dimensions On Each Side of Feature ^{a/}
Open-cut Road Crossings	100' X 175' and 50' X 175'
Bored Road and Railroad Crossings	100' X 175' and 50' X 175'
Foreign Pipeline and Utility Crossings	50' X 100' and 50' X 100'
Pipeline Crossovers	~100' X 100'
Waterbody Crossings >50' wide	100' X 300' and 50' X 300'
Waterbody Crossings <50' wide	75' X 200' and 50' X 200'
Horizontal Directionally Drilled Waterbody Crossings	50' X 200'
Hydrostatic Testing	40' X 300'
Horizontal Directional Drill Pipe String	50' by the length of the drill
Truck Turn-Around	100' X 200'
^{a/} Areas are in addition to the 100-foot-wide construction right-of-way	

Alberta Clipper/Southern Lights Diluent Projects (Docket No. PL9/PPL-07-361)

While the Alberta Clipper and the Southern Lights Diluent projects are the subject of the second set of applications for a Certificate of Need (Docket No. PL9/CN-07-465) and a Pipeline Routing Permit (Docket No. PL9/PPL-07-361), Enbridge's proposal does call for the Alberta Clipper

pipeline to be located parallel to and adjacent to the LSr pipeline. However, a routing decision on the LSr pipeline does not predetermine a decision on the Alberta Clipper pipeline. Enbridge plans to construct the Alberta Clipper Project in conjunction with the Southern Lights Diluent Project in 2009 and 2010.

The Alberta Clipper Project consists of approximately 1,000 miles of 36-inch outside diameter crude oil pipeline, including all associated valves and appurtenances. It will start in Hardisty, Alberta and end at an Enbridge terminal facility in Superior, Wisconsin. This line will transport approximately 450,000 barrels of heavy crude oil from the Canadian oil sands to refineries in the Midwest. The Minnesota portion of the project is approximately 300 miles.

The Southern Lights pipeline project will transport liquids (condensate or diluent) north from refineries in Chicago area to the oil sands. The oil extracted in Alberta has a tar-like consistency and must be diluted before it can be moved through a pipeline. The Southern Lights Project will consist of approximately 188 miles of new 20-inch outside diameter pipeline in Minnesota. When completed, this new pipeline will begin in the Chicago area and end at the Enbridge terminal facility near Clearbrook, Minnesota. At Clearbrook, Enbridge will reverse the flow on one of its existing pipelines to continue transporting the diluent north to a terminal point near Edmonton, Alberta, Canada.

The Alberta Clipper Project will cross 13 counties in Minnesota. Going from west to east they are: Kittson, Marshall, Pennington, Red Lake, Polk, Clearwater, Beltrami, Hubbard, Cass, Itasca, Aitkin, St. Louis and Carlton. See attachment 2 in the Commissioner's packet. The portion of the Southern Lights Project requiring new pipeline construction in Minnesota will cross the counties of Clearwater, Beltrami, Hubbard, Cass, Itasca, Aitkin, St. Louis and Carlton.

Collectively, these (three) projects (LSr, Alberta Clipper and Southern Lights) will require approximately 75-feet of additional permanent easement (right-of-way) adjacent to Enbridge's existing 125-foot wide right-of-way, which is occupied by five existing pipelines (with diameters of 26", 18", 34", 36/48" and 20") west of Clearbrook. See Attachment 3 in the Commissioner's packet.

III. REGULATORY PROCESS AND PROCEDURES

Minn. Stat. Chapter 216G requires a pipeline routing permit from the PUC to construct certain intrastate natural gas and petroleum pipelines in Minnesota, including pipelines with a diameter of six inches or more that are designed to transport hazardous liquids like crude petroleum. The statute was passed in 1987. The rules implementing the pipeline routing requirements were adopted in 1989 (Minn. Rules Chapter 7852). Approximately 35 pipeline routing permits have been issued over the years.

When the PUC issues a pipeline routing permit for the construction of a pipeline and associated facilities, it must designate a route for the pipeline type and maximum size specified in the application, conditions for right-of-way preparation, construction, cleanup, and restoration contained in Minn. R. 7852.3600, and any other appropriate conditions relevant to minimizing

environmental and human impact. See Minn. R. 7852.3200. The PUC decision must be made in accordance with Minn. R. 7852.1900.

Enbridge is pursuing review of the LSr project in accordance with the full pipeline route selection procedures which is approximately a nine month review process. The requirements of this process are in Minnesota Rules 7852.0800 through 7852.1900.

Procedural Background

Commission accepted the LSr pipeline routing permit application on July 27, 2007, allowing the Department of Commerce, Office of Energy Security (OES), Energy Facility Permitting (EFP) Staff to implement the procedural requirements of Minnesota Rules 7852.0800 through 7852.1900 and referring the matter to the Office of Administrative Hearings (OAH) for a contested case hearing under Minnesota Rules Chapter 1405. The Certificate of Need application for the project was accepted on the same date and also referred to the OAH for a contested proceeding.

EFP staff held public information meetings in 11 counties between August 13 and 23, 2007, to explain the pipeline routing process, including the process for identifying additional routes. In conjunction with the meetings, Enbridge held an open house prior to each meeting to provide interested persons with an opportunity to find out more about the project and respond to questions. Enbridge also provided county maps showing its preferred route, copies of the proposed Environmental Mitigation Plan and other project-related information available to interested persons.

Additional route proposals were due on October 10, 2007. On November 1, 2007, the PUC took action to determine what routing options would be considered at the public hearing. After routes are authorized by the Commission for consideration at the public hearing and prior to the public hearing, a comparative environmental analysis must be prepared by EFP staff or by the applicant and reviewed by the staff and submitted as prefiled testimony as required by Minn. Rule, part 1405.1900. The comparative environmental analysis was completed November 9, 2007.

EFP staff in consultation with the PUC staff and the Administrative Law Judge (ALJ) assigned to this proceeding, scheduled and noticed the public hearings for the Certificate of Need and Pipeline Routing Permit proceedings. On November 27 and 28, 2007, public hearings were held in Kittson, Marshall, Pennington and Red Lake counties.

Public hearings in Polk and Clearwater counties, originally scheduled for November 29, 2007, were postponed following an explosion on Enbridge's pipelines system just south and east of the Clearbrook Terminal. Consequently, those hearings were rescheduled for January 17, 2008 and the Contested Case Hearing for the LSr CON Application was held on January 22, 2008. All testimony and cross-examination was completed on that date.

Over the course of six public hearings 20 members of the public offered testimony and the ALJ received 12 sets of written comments before the close of the post-hearing comment period on February 8, 2008.

On March 24, 2008, the ALJ report was filed with the Commission and interested persons had an opportunity to file exceptions by April 8, 2008. The only exceptions to the routing portion of the project were filed by Enbridge. The exhibits in this proceeding have not been transferred to the PUC.

Environmental Review

In 1989 the EQB approved the pipeline routing rules (Minn. R. Chapter 4415, now Chapter 7852) as a substitute form of environmental review (Minnesota Rules 4410.3600) for pipelines. It determined that the Chapter 7852 requirements, including the detailed Environmental Assessment Supplement submitted with the pipeline application and the comparative environmental analysis of alternative routes, fulfill the intent and requirements of the Minnesota Environmental Policy Act. Consequently, a separate EAW or EIS is not prepared for pipeline projects in Minnesota.

Agricultural Mitigation Plan Requirements

Minn. Stat. 216E.10 requires an applicant for a permit for a transmission line, power plant and pipeline to address agricultural concerns:

Minn. Stat. 216E.10 (b) An applicant for a permit under this section or under chapter 216G shall notify the commissioner of agriculture if the proposed project will impact cultivated agricultural land, as that term is defined in section [216G.01, subdivision 4](#). The commissioner may participate and advise the commission as to whether to grant a permit for the project and the best options for mitigating adverse impacts to agricultural lands if the permit is granted. The Department of Agriculture shall be the lead agency on the development of any agricultural mitigation plan required for the project.

An Agricultural Mitigation Plan (AMP) was developed by Enbridge in consultation with the Minnesota Department of Agriculture (MDA), and an April 2007 draft was submitted as part of the application. The MDA has made some recommended changes to the AMP and they are incorporated into the March 2008 version of the AMP filed by Enbridge.

A final AMP and Appendix to Agricultural Mitigation Plan: Mitigative Actions for Organic Agricultural Land is proposed to be included as one of the conditions in a pipeline routing permit issued by the Commission. See Attachment 8 in the Commissioner's packet.

Other Permit Requirements

Construction of the LSr Pipeline will require extensive consultation with federal, state, and local governmental agencies. Enbridge has filed a list of all permits, licenses or plans that must be obtained, approved and filed prior to proceeding with project construction. See Attachments 4 and 5 in the Commissioner's packet.

IV. OES EFP STAFF ANALYSIS AND RECOMMENDATIONS

The ALJ's report in PUC Dockets PL-9/CN-07-464 (Certificate of Need) and PL-9/CN-07-360 addresses both need and siting as it relates to the CON Proceeding and the Pipe Line Routing Permit for Enbridge's proposed LSr Project. The ALJ's report consists of 177 findings of fact, 59 conclusions and two recommendations:

- (1) Enbridge's Application for a Certificate of Need for a Crude Oil Pipeline known as the LSr Project should be GRANTED.
- (2) Subject to the conditions set forth in the Conclusions, Enbridge's Application for a Routing Permit for a crude oil pipeline known as the LSr Project, including the Revised Preferred Route and Alignment should be GRANTED.

The report documents that the procedural requirements of Minn. Stat. Chapter 216G and Minn. Rules Chapter 7852 were followed, and presents findings of each of the decision criteria under Minn. Rules 7852.1900.

The ALJ noted that the Commission may, at its own discretion, accept or reject the Administrative Law Judge's recommendations and that the recommendations have no legal effect unless expressly adopted by the Commission in its final Order.

The exceptions and comments filed by parties and participants, and other issues germane or of interest to the Commission are grouped by subject areas.

The findings and conclusions included in the following discussion retain the same numbering used in the ALJ's report. Amendments, changes, deletions and additions to the ALJ findings are shown by strikethrough and underlining.

Minor Corrections to ALJ Report

OES EFP notes six minor technical corrections to the ALJ's report. These corrections are not controversial and in no way alter the conclusions of the report or permit conditions.

A. ALJ REPORT: OVERVIEW OF THE PROPOSED LSR PROJECT

OES EFP staff proposes to eliminate duplicate language as shown below:

Paragraph 6. The Lakehead System is only pipeline system that now connects Western Canadian oil production with the states of the Upper Midwest. Further, Enbridge notes that the Lakehead System is the shortest pipeline route to connect ~~to connect~~ this production to Minnesota's refinery markets.

*B. ALJ REPORT: SUMMARY OF TESTIMONY AT THE PUBLIC HEARINGS
RED LAKE COUNTY HEARING -- OKLEE, MINNESOTA*

EFP staff notes that "shelter bed" should be "shelterbelt" and offers the following correction:

Paragraph 2. By way of reply Enbridge staff indicated due to the proximity of a railway line near this site, an existing ~~shelter-bed~~ shelterbelt of trees and the Berry home, the Applicant proposes to "neck down" the separation between various pipelines to approximately 15 feet between pipes, in this location. Similarly, Enbridge also indicated that its construction space would be reduced from approximately 140 feet to approximately 80 feet at this location. Enbridge also noted its intention to install exclusion fencing so as to cabin any construction activity to the portions of the property that are covered by the easement agreement. (Footnotes omitted from ALJ Report)

C. ALJ FINDING 6: CORRECTION TO FILING DATE

EFP staff notes that the application was actually filed on April 24, 2007 and proposes to amend Finding 6 as follows:

6. Enbridge filed an Application for a Pipeline Routing Permit for a Crude Oil Pipeline on April ~~20~~ 24, 2007 for the LSr Project (the "LSr PRP Application") with the Minnesota Public Utilities Commission ("PUC" or "Commission"). The LSr PRP Application was assigned PUC Docket No. PL9/PPL-07-360.

D. ALJ FINDING 15 AND 26: CORRECTION TO NAME OF PUBLICATION

EFP staff notes two findings with incorrect reference for the *EQB Monitor* and proposes to amend Finding 15 and 26 as follows:

15. Also on July 30, 2007, the ~~Minnesota Environmental Quality Monitor~~ *EQB Monitor* published a seven-page document titled "Notice of Pipeline Routing Permit Application Acceptance and Public Information Meetings on the Enbridge Pipeline Projects." This document provided information regarding the nature of the LSr and Alberta Clipper CON and PRP Applications

and the opportunities for public involvement in the review process.
(Footnotes omitted from ALJ Report)

26. On November 5, 2007, the ~~Minnesota Environmental Quality Monitor~~ *EQB Monitor* published a seven-page document titled “Notice of Public Meetings and Public Hearings Before the Minnesota Public Utilities Commission Regarding: I. [CON] Applications for the LSr, Alberta Clipper and Southern Lights Diluent Projects ... II. Applications for [PRP’s] for the LSr, Alberta Clipper And Southern Lights Diluent Projects” This notice discussed the LSr and Alberta Clipper CON and PRP Applications, listed the public hearing details and described how members of the public could participate in the review process.

E. ALJ FINDING 29: CORRECTION FOR HEARING DATES

Enbridge and EFP staff noted that the hearing dates in Finding 29 are not correct and proposes to amend Finding 29 as follows:

29. Public hearings were held on November ~~26 and 27~~ and 28, 2007, in Kittson, Marshall, Pennington and Red Lake counties.

F. ALJ FINDING 97: ENBRIDGE EXCEPTION CONCERNING HYDROSTATIC TESTING

Enbridge notes that Finding 97 appears to have a simple transposition of words that result in the implication that Enbridge will conduct “Hydrostatic testing of discharge water for the presence of contaminants.” Enbridge will test water discharged from the pipeline after hydrostatic testing for the presence of contaminants in order to prevent pollution from entering the environment.

Enbridge and EFP staff suggests the finding be corrected as follows:

97. For example, the Environmental Mitigation Plan proposed by the Applicant includes a series of testing and inspection regimes – including testing Hydrostatic testing ~~of~~ discharge water for the presence of contaminants, and filtering techniques so as to limit discharge of solids into local streams, rivers and lakes. (ALJ footnotes omitted)

G. ALJ FINDING 154: SPELLING CORRECTION

EFP staff suggests the finding be corrected as follows.

154. Enbridge has assembled a thorough catalogue of the ~~typography~~ topography, soils, habitats, ecological systems and water resources traversed by the LSr pipeline route. (Internal footnote omitted)

Exceptions to ALJ Findings of Fact and Conclusions

Enbridge filed seven exceptions to the routing portion of the ALJ's report, six related to findings and six related to conclusions.

A. ALJ FINDING 47: EXCEPTION CONCERNING LSr OPERATIONAL DETAILS

47. Under Enbridge's LSr proposal, transportation of these (now segregated) batches of light and medium density crude oil will occur along their own dedicated pipeline. Further, from the vantage point of other expansion projects that it envisions over the course of the next decade, Enbridge asserts that the LSr Project will help to relieve "bottlenecks" in capacity that it projects for this expanded system.

Exception: In Finding 47, the Report correctly notes that construction of the LSr Project will allow batches of light and medium density crude oil to be transported through their own dedicated pipeline. Finding 47, however, goes on to discuss the capacity problems faced on the Enbridge Mainline System in relation to other proposed expansions, stating that the LSr Project will alleviate "'bottlenecks' in capacity that [Enbridge] projects for this expanded system." The Enbridge Mainline System currently suffers from a bottleneck – a section of the system with lower capacity than is required – created by the present need to batch-inject the volumes that will be transported by the dedicated LSr Project into the greater mainline system. The need for the LSr Project is independent from the need for any future expansion of the Enbridge Mainline System such as those proposed in the separate MPUC Dockets PL9/CN-07-465 and PPL-07-361.

The present need for the LSr Project is correctly stated in Conclusion 10, where the Report notes "[i]f Enbridge were permitted to transport the now-segregated batches of light and medium density crude oil, along a dedicated pipeline, additional capacity would be realized for all grades of crude oil that are moved on the Enbridge Mainline System. This additional capacity would relieve bottlenecks in the *current* system."

EFP Staff Analysis: Staff concurs with Enbridge's exception to this finding and Enbridge's suggested language to modify the finding as proposed:

47. Under Enbridge's LSr proposal, transportation of these (now segregated) batches of light and medium density crude oil will occur along their own dedicated pipeline. ~~Further, from the vantage point of other expansion projects that it envisions over the course of the next decade, Enbridge asserts that the LSr Project will help to relieve "bottlenecks" in capacity that it projects for this expanded system.~~ Elimination of the current system bottleneck is an integral element in maximizing Enbridge's ability to transport crude oil into the Midwest.

B. ALJ FINDING 156. VEGETATION REMOVAL

156. Vegetation cover will be removed from the right-of-way and temporary workspace areas during construction, but restored following the completion of construction. (Internal footnotes omitted)

Exception: Enbridge commented that Finding 156 should be clarified to reflect that full vegetation can return to the temporary workspace, but that revegetation of the right-of-way should be limited to that which still allows safe operation, inspection, and maintenance of the LSr Project and compliance with federal pipeline safety regulations.

EFP Staff Analysis: Staff concurs with Enbridge's observation that revegetation of the right-of-way should be limited to that which still allows safe operation, inspection, and maintenance, as noted in Minn. R. 7852.3600 (M) and (N) and Minn. Stat. 216G.02, Subd. 3 (9). Staff recommends adding the following sentence to Finding 156 for clarification:

156. Vegetation cover will be removed from the right-of-way and temporary workspace areas during construction, but restored following the completion of construction. Restoration of the right-of-way must be compatible with safe operation, maintenance and inspection of the pipeline. (Internal footnotes omitted)

C. FINDING 158. DEPTH OF BURIAL

158. Installation of the pipeline will occur below ground, generally, at a depth of 10 feet. For most of the pipeline route, this depth is above the water table. (Internal footnotes omitted)

Exception: Enbridge noted that Finding 158 implies that the LSr Project will be installed at a depth of ten (10) feet. This finding refers to a section of the LSr PRP Application that discusses groundwater. This section states that "[g]round disturbance associated with pipeline construction is primarily limited to the upper 10 feet, which is above the water table of most of the regional aquifers." Enbridge intends to install the pipeline at a depth of three (3) feet, seeking depth of

cover waivers where necessary as allowed by Minn. Stat. 216G.07, subdivisions 2 and 3. If unable to obtain such waivers, Enbridge intends to follow the requirements of Minn. Stat. 216G.07, which requires a depth of cover of four-and-a-half (4.5) feet in areas where the pipeline crosses the right-of-way of a public drainage system, roadway, or cultivated agricultural land.

EFP Staff Analysis: EFP staff concurs with Enbridge's assessment on the depth of burial and suggests that Finding 158 be modified as suggested by Enbridge as follows:

158. Installation of the pipeline will occur below ground, generally, at a depth of ~~four~~ three (3) to four-and-a-half (4.5) feet, as determined by Enbridge's ability to obtain waivers of the depth of cover requirement for crossing the right-of-way of public drainage systems or roads or cultivated agricultural land, pursuant to Minn. Stat. § 216G.07, Subdivision 2 and 3. Installation of the pipeline will generally not disturb more than the upper 10 feet of earth, which is above the water table for most of the pipeline route. ~~For most of the pipeline route, this depth is above the water table.~~
(Internal footnotes omitted)

D. CONCLUSION 48: REGARDING ADDITIONAL LANDOWNER CONSIDERATIONS

48. The Commission should grant a Pipeline Routing Permit for the LSr Project. The permit should authorize construction and operation of the LSr Project within the Revised Preferred Route and Alignment and Route Alternatives.

Exception: Enbridge noted that in Conclusion 48, the Report recommends that the Commission grant the LSr PRP Application and "authorize construction and operation of the LSr Project within the Revised Preferred Route and Alignment and Route Alternatives." The Revised Preferred Route and Alignment and Route Alternatives were submitted on October 10, 2007. In early February of 2008, after the passing of the deadline to file route alternatives, Enbridge was able to reach a mutually-agreeable alteration of the Revised Preferred Route and Alignment with landowners Joel D. and Marsha Lee Kezar in Pennington County, Minnesota on Tract T-852A. This alteration was submitted in the form of letters from Enbridge and the Kezars, accompanied by maps showing the Revised Preferred Route and Alignment and the agreed-upon alteration. These letters and maps, attached as Exhibit A, requested that any Pipeline Routing Permit issued for the LSr Project include this change to the Revised Preferred Route and Alignment as a permit condition.

Enbridge believes that it is important to reduce the impacts to landowners to the extent feasible. The request from both Enbridge and Mr. and Mrs. Kezar was developed to accomplish that goal. The Commission should not allow the passage of the deadline for the submission of route alternatives to be a bar to that goal when such a change is agreed upon by both the landowner and the Applicant, as has occurred in this instance.

EFP Staff Analysis: EFP staff concurs with Enbridge's intent in working with Mr. Kezar to find a satisfactory solution and supports the language offered by Enbridge which is as follows:

48. The Commission should grant a Pipeline Routing Permit for the LSr Project. The permit should authorize construction and operation of the LSr Project within the Revised Preferred Route and Alignment and Route Alternatives, including the changes in the area of Tract T-852A requested by Enbridge and the owners of that parcel.

E. CONCLUSION 54(C):

54(c) mitigation measures developed for the Berry, Carlson, Gunvalson and Kezar properties;

Exception: Conclusion 54(c) requires Enbridge to comply with impact mitigation measures developed for four properties. These mitigation measures were discussed at the public hearings in various counties. Enbridge agrees with this conclusion and requests that these mitigation measures be incorporated as permit conditions. However, for the purpose of clarity and additional landowner protection, Enbridge requests that the mitigation measures be specified for the Berry, Carlson and Gunvalson properties.

For the Berry property, located at Mile Post 886.5, Enbridge agreed to reduce the separation between the LSr project and other pipelines to approximately 15 feet, reduce the construction workspace to 80 feet, and install exclusion fencing to provide a barrier to ensure that the construction area on the property is so limited.

For the Carlson property, located at Mile Post 896, Enbridge agreed to reduce the line separation and temporary workspace near the home and business locations on the Carlson property. Enbridge's proposal was shown on Exhibit 13. A permit condition should require Enbridge to follow the proposal outlined on Exhibit 13.

For the Gunvalson property, located at Mile Post 902, the landowner requested that a culvert be relocated to improve field drainage and eliminate topsoil loss. Enbridge investigated the request, and later determined that permits would be required from Pine Lake Township and the Red Lake Watershed District. A permit condition should require Enbridge to apply for those permits and relocate the culvert if the permits are granted.

The remaining landowners mentioned in Conclusion 54(c), Mr. and Mrs. Kezar, subsequently arrived at the alternate route segment on their property discussed above in the exception to Conclusion 48. The mitigation measures for this parcel discussed at the public hearings predated this agreement, and are no longer relevant if the Commission approves the change to Conclusion 48 requested above. Enbridge therefore requested that the Kezar mitigation measures discussed at the public hearings be removed from Conclusion 54(c).

EFP Staff Analysis: EFP Staff has reviewed the record in this matter and is in concurrence with Enbridge and proposed that that Conclusion 54(c) be modified as follows:

54(c) mitigation measures ~~developed for the Berry, Carlson, Gunvalson and Kezar properties;~~ for the Berry property (line separation reduced to 15' and construction workspace reduced to 80' near the home, installation of exclusion fencing), Carlson property (reduced line separation and temporary workspace near the home and business, as shown on Exhibit 13), and Gunvalson property (apply for permits to relocate a culvert and do so if the necessary permits are granted).

F. CONCLUSION 55:

55. The Routing Permit should require Enbridge to confer with the Minnesota Historical Society prior to commencing construction at “Site 21MA39” to determine what mitigation measures can be made to preserve this archeological site. Moreover, the Commission should specify that Enbridge may not excavate at this site until so authorized by the Historical Society. (Internal footnote omitted)

Exception: Enbridge noted that while it is sensitive to the need to preserve Minnesota’s heritage, it is also concerned that this requirement may unreasonably delay construction of the LSr Project. In addition, Enbridge notes that the specific authority within the Minnesota Historical Society that works to evaluate, register, and protect historic and archeological sites is the Minnesota State Historic Preservation Office.

EFP Staff Analysis: EFP Staff concurs with Enbridge’s observation that the appropriate entity to reference in this conclusion is the Minnesota State Historic Preservation Office. However, staff does not believe that requiring Enbridge to confer with SHPO will unreasonably delay construction. Staff suggests the conclusion be modified as follows:

55. The Routing Permit should require Enbridge to confer with the Minnesota State Historic Preservation Office prior to commencing construction at “Site 21MA39” to determine what mitigation measures can be made to preserve, avoid, minimize, or mitigate adverse effects to this archeological site. ~~Moreover, the Commission should specify that Enbridge may not excavate at this site until so authorized by the Historical Society.~~ (Internal footnote omitted)

G. CONCLUSION 57:

57. The Routing Permit should require Enbridge to assume any additional costs of development that may be the result of installing roads, driveways and utilities that must cross the right-of-way.

Exception: Enbridge noted that Conclusion 57 would require Enbridge to “assume any additional costs of development that may be the result of installing roads, driveways and utilities that must cross the right-of-way.” It is concerned that this language could be interpreted to imply a future obligation on the part of Enbridge.

It suggests that a condition that requires it to assume additional costs to repair or replace an existing driveway, road or utility crossing impacted by the construction of the LSr Project in a manner that allows safe crossing of the pipeline right-of-way would be more appropriate. Such a condition would make it clear that no landowner, municipality or other party should bear unanticipated costs created by the construction of the LSr Project. Enbridge notes that future development involving driveways, roadways or utilities crossing the pipeline right-of-way should be created in consultation with Enbridge, but Enbridge should not bear the burden of subsidizing unknown future development.

EFP Staff Analysis: If the pipeline is buried at an appropriate depth (typically no less than 36 inches or more) there should not be any problem with road or driveway installation over the pipeline. Where it is known that the movement of heavy equipment may interfere with the safe operation of the pipeline a greater depth of burial may be required. Enbridge should take such uses related to existing and planned development adjacent to the pipeline into account in its design and construction. Enbridge suggests the following language:

57. The Routing Permit should require Enbridge to assume any additional costs ~~of development that may be the result of installing roads, driveways and utilities that must cross the right-of-way.~~ for the repair or replacement of any roads, driveways and utilities that are disturbed by the construction of the LSr Project.

OES EFP Staff Supplemental Findings and Conclusions

The ALJ’s report accurately summarizes comments made at the public hearings and the written comments that are a part of the record. However, EFP staff believes that to effectuate some of public and agency comments as permit conditions, that supporting findings and conclusions are necessary, in order to have a record that supports inclusion as permit conditions in the EFP staff proposed pipeline routing permit. In some instances, the public comments offered addressed concerns that are standard conditions in pipeline routing permits or mitigation plans that are prepared for a pipeline project.

The following captures, what EFP staff believes are the most significant issues raised, with supporting findings and conclusions.

A. ROADS AND NOXIOUS WEEDS

EFP Staff Analysis: Several representatives from the various County Highway Departments stressed the importance of maintaining access roads to various farms, early contact to coordinate road usage, the need to haul heavier loads on higher-capacity trunk highways, road and bridge restrictions, limiting the number of open road cuts at one time, performance bonds and measures be taken to prevent the spread of noxious weeds.

In order to collectively address issues raised by the various highway engineers, EFP proposes the following supplemental findings:

Supplemental Finding 1 (This finding is supported by ALJ Conclusions 53 and 58.)

Enbridge officials will contact and coordinate with all appropriate transportation officials to insure that all of their concerns will be addressed throughout all construction and restoration phases of the LSr Project.

Supplemental Finding 2 (This finding is supported by ALJ Conclusions 37, 43, 53 and 59 and the Agricultural Mitigation Plan.)

Enbridge has indicated that it will address the spread of noxious weeds as specified in its Environmental Mitigation Plan and its Invasive Species Plan.

B. DEPARTMENT OF NATURAL RESOURCES LETTER, FEBRUARY 8, 2008

EFP Staff Analysis: The ALJ in his report summarized DNR's comments as follows:

Specifically, Mr. Langan suggested measures ...relating to seven distinct topics – namely, clear regulatory controls, regarding combating anthrax, obtaining adjustments in the pipeline center line, crossing of sensitive areas, crossing forested river corridors, undertaking winter construction, proper Horizontal Directional Drill practice and avoiding spills of Bentonite into nearby streams” and environmental management.

DNR's concerns summarized above are addressed in the following proposed findings:

Supplemental Finding 3 – Anthrax (This finding is supported by ALJ Conclusion 37, 43, and 53.)

DNR's comment letter noted that most of the recent outbreaks of Anthrax have been in Northwestern Minnesota, and DNR has an interest in such outbreaks because anthrax can also infect deer. EFP staff has confirmed through the webpage maintained by the Board of Animal Health that there have been over 25 reported cases of anthrax in the counties crossed by the LSr Pipeline between 2000 and 2007 and that in a nearby county one case of anthrax has been reported in 2008. EFP staff has requested that Enbridge prepare an anthrax mitigation plan. Enbridge has prepared and efiled an Anthrax Mitigation Plan on May 6, 2008. The Anthrax Mitigation Plan addresses DNR's concern, as well as others who may have an interest in this limiting the spread of this disease.

Supplemental Finding 4 – Route Width (This finding is supported by ALJ Conclusions 49 and 50.)

DNR indicated that it believed some flexibility was needed to vary both the center line and route width. Such a mechanism does exist. For example, the MinnCan Pipeline Routing Permit issued by the Commission and introduced as an exhibit (No. 504) in the record of this proceeding does in fact allow for deviations. See permit at part IV and language within this part that states: "Route width variations may be allowed for the permittee to overcome site specific constraints." The EFP staff proposed Pipeline Routing Permit for the LSr Project contains the same language.

Supplemental Finding 5 – "Site of Outstanding Biodiversity" (This finding is supported by ALJ Conclusions 35, 43, 53, 54(b).)

Between MP 852 and MP 854.5, the proposed pipeline will cross a natural feature, designated a "Site of Outstanding Biodiversity Significance" by the DNR Natural Heritage program. This beach ridge feature contains complex upland and wetland communities, with groundwater emergent zones and mixed with oak savanna and a newly identified calcareous fen. In order to preserve this privately owned property the Permittee has indicated a willingness to work with the landowner and the Department of Natural Resources to preserve and protect, while minimizing the impact of the pipeline on this Site of Outstanding Biodiversity Significance.

Supplemental Findings 6 and 7 – Vegetation along Forested River Corridors (These findings are supported by ALJ Conclusions 35, 38, 40, 43 and 54(b).)

6. DNR is concerned the lack of vegetation along stream band and rivers where there are multiple pipelines crossings in order to mitigate for losses of wildlife habitat elsewhere along the pipeline and the potential for increased erosion. Enbridge can address some of these concerns and has developed a plan and profile for vegetation replanting along wooded water crossings. However, there may be a conflict between what requirements DNR would prefer and the federal pipeline safety requirements for inspection of the right-of-way. The PUC jurisdiction does not extend to safety related issues. This issued can be better addressed by Enbridge, MNDNR and the Office of Pipeline Safety.

7. DNR also believes that an HDD crossing of the Snake River (MP 843) is appropriate to protect the Snake River because of a downstream long-term research project which involves joint monitoring efforts among several governmental agencies, including the watershed district, DNR, and Natural Resources Conservation Service. DNR believes that if the data is compromised it will hamper efforts to understand impact of the flood control project and limit the ability to develop appropriate mitigation for the flood control project. Enbridge has agreed to a HDD crossing of the Snake River and this is proposed as a condition in the pipeline routing permit at V.N.8.

Supplemental Finding 8 – Horizontal Directional Drilling (This finding is supported by ALJ Conclusion 54 (a), (b), and specifically (h).)

Horizontal directional drilling (HDD) techniques are often used to minimize impacts to water crossings. However, HDD is not without impact. The primary environmental impact associated with HDD is the inadvertent release of drilling fluids/mud (water bentonite mixture) to the surface during construction (sometimes referred to as a “frac-out”), such as in artesian situations where groundwater emergence creates paths to the surface. Large amounts of drilling mud (bentonite) can reach rivers, wetlands and other sensitive natural resource features unless an appropriate response plan is in place that works under all construction conditions. Enbridge’s application to the PUC contains a Drilling Mud Containment, Response, and Notification Plan. DNR through its permitting process for crossing public lands or waters can also

impose additional standards to insure that the plan will work under all construction conditions.

Supplemental Finding 9 – Construction Environmental Control Plan (This finding is supported by ALJ Conclusion 53, 54(a) and all plans the Permittee is required to comply with as a part of the pipeline routing permit.) DNR believes that interagency coordination in the Enbridge project can reduce environmental impacts and further identified a number of environmental management issues that should be addressed. Enbridge has prepared a well defined “Construction Environmental Control Plan.” EFP staff believes that this plan will address many of the issues identified by the DNR letter dated February 8, 2008. The Commission has the authority to revisit this issue if there are problems in implementing the requirements of the plan.

C. MINNESOTA DEPARTMENT OF AGRICULTURE LETTER, FEBRUARY 8, 2008

EFP Staff Analysis: In its February 8, 2008, letter to the ALJ, MDA commented that it concurred with the revisions to the Agricultural Mitigation Plan, except for one provision about which we (MDA and NRG, a consultant for Enbridge) were unable to come to agreement: Section 25, “Managing Change during Construction.” This new section reads as follows:

25. Managing Change during Construction.

Constraints on pipeline construction methods in agricultural land are difficult to predict but may require minor to major, site-specific alterations in routine construction methods. Necessary changes to default procedures outlined in this AMP will be managed through a variance process whereby the Agricultural Monitor will have the authority to approve pre-defined changes in the field or will work with MDA to consider changes beyond the scope of the field approvals. Change requests will typically be initiated by Enbridge and forwarded to the Agricultural Monitor who in turn will either make a decision or consult with MDA if needed. In some cases, Enbridge may submit a change request directly to MDA.

A. Field Approvals

The Agricultural Monitor will have the authority to approve the following during construction:

- Increase either the depth or extent of required Topsoil removal:
- Changes to the configuration of Topsoil storage:
- Other changes that were originally subject to MDA approval, but have since become routine in nature.

B. MDA Approvals

Any global changes to the AMP that are requested by Enbridge, the Landowners, the Tenants of the Agricultural Monitor, must be reviewed and approved by MDA in consultation with the party requesting the changes.

In its conclusion, the MDA letter states:

....we believe that sufficient flexibility has been provided through the revisions to Section 2, “Topsoil Stripping, Storage, and Replacement”, and that Subsection A of proposed new Section is superfluous. Additionally, authority for the MDA to make global changes to the AMP (as proposed in Subsection B) is inconsistent with the overall structure of the AMP and its context as part of the Routing Permit issued by the Public Utilities Commission (PUC). The AMP is intended to be a baseline set of mitigative actions that are subject to change by the landowners (see the AMP, first paragraph under “General Provisions” on page 1). Moreover, the AMP is not a permit by itself, but a set of conditions attached to a permit issued by the PUC. We do not believe it is appropriate for the MDA to make global changes to the AMP without the consent of the PUC.

EFP staff concurs with the recommendations of the MDA to remove Section 25; “Managing Change during Construction,” from the AMP dated January 2008.

Supplemental Finding 10 – Section 25 in the Agricultural Mitigation Plan (This finding is supported by ALJ Conclusion 54(f).) Section 25 of the Agricultural Mitigation Plan is not necessary because of the flexibility built into the AMP as a result of the MDA’s experience with the MinnCan Agricultural Impact Mitigation Plan that is reflected in the March 2008 Agricultural Mitigation Plan.

D. ALICE AND RANDY PETERSON LETTER, DECEMBER 7, 2007

EFP Staff Analysis: Alice commented extensively (three letters) about the property (MP 839/Tract T-923) she and her brother Randy live on, which is a Century Farm, and adverse impact of losing mature trees (which act as a windbreak and extensive wildlife habitat), as well as berry and fruit bearing vegetation if the entire width of the temporary workspace were cleared of all vegetation. Alice is requesting that the construction workspace on their property be “necked down or limited” in order to preserve as much vegetation as possible, while recognizing that significant amounts of vegetation will need to be cleared in order to install the pipeline(s) on her property.

Supplemental Finding 11 – Alice and Randy Peterson Property (MP 839/Tract T-923) The construction workspace on the Peterson property will be “necked down” on non-agricultural lands by Enbridge in order to limit the number of trees that will have to be cut on the Peterson property in order to install the pipeline.

This finding is not clearly supported by a conclusion. Therefore, a modification is offered to further amend ALJ Conclusion 54(c) as follows:

54(c) mitigation measures ~~developed for the Berry, Carlson, Gunvalson and Kezar properties~~ for the Berry property (line separation reduced to 15’ and construction workspace reduced to 80’ near the home, installation of exclusion fencing), Carlson property (reduced line separation and temporary workspace near the home and business, as shown on Exhibit 13), and Gunvalson property (apply for permits to relocate a culvert and do so if the necessary permits are granted), **Peterson Property (reduce line separation and or temporary workspace in area with mature vegetation.**

Proposed Pipeline Routing Permit

DOC EFP staff has prepared a proposed pipeline routing permit for the Commission’s consideration. The proposed permit is similar in many respects to the Pipeline Routing Permit issued by the PUC for the MinnCan Project. A copy of the MinnCan Pipeline Routing Permit was introduced into the record as an exhibit. See Exhibit 504.

EFP staff has proposed additional permit conditions that address project related impacts, mitigation of impacts, and language in order to provide precise directives to the Permittee.

The EFP staff proposed permit has three attachments (1) Minnesota Public Utilities Commission Complaint Handling Procedures; (2) Minnesota Public Utilities Commission Compliance Filing Procedures; and (3) Permit Compliance Filings.

Staff is also proposing to include three Appendices. Appendix A: Agricultural Mitigation Plan; Appendix B: Environmental Mitigation Plan and Appendix C: Aerial Photos Depicting LSr Route (May 5, 2008). The photos only present existing information already in the record. The May 5, 2008 photos have been modified for illustration purposes only.

The OES EFP staff proposed permit also incorporates many of conditions addressed by the ALJ’s report in Conclusions 52 through 58, unless otherwise noted or discussed.

Staff believes the proposed permit provides terms and conditions that will minimize impacts to humans and the natural environment.

V. COMMISSION DECISION OPTIONS

Minor Corrections A. through G. to ALJ Report

1. Adopt ALJ Report-Overview of the LSr Project as written.
2. Adopt minor technical corrects A. through F. as proposed by OES EFP Staff
3. Take other action deemed more appropriate.

OES EFP Staff Recommendation: Staff recommends Option 1.

Exceptions to ALJ Findings of Fact and Conclusions

A. ALJ Findings 47: Exception concerning LSr Operational Details

- 1) Adopt ALJ Finding 47 as written.
- 2) Adopt Finding 47 with the following Enbridge and EFP staff suggested modification:

47. Under Enbridge's LSr proposal, transportation of these (now segregated) batches of light and medium density crude oil will occur along their own dedicated pipeline. ~~Further, from the vantage point of other expansion projects that it envisions over the course of the next decade Enbridge asserts that the LSr Project will help to relieve "bottlenecks" in capacity that it projects for this expanded system.~~ Elimination of the current system bottleneck is an integral element in maximizing Enbridge's ability to transport crude oil into the Midwest. (Internal citations omitted)

- 3) Take other action deemed more appropriate.

EFP Staff Recommendation: Staff recommends Option A. 2).

B. ALJ Finding 156 – Enbridge suggested language on vegetation.

- 1) Adopt ALJ Finding 156 as written.
- 2) Adopt Finding 156 with the following Enbridge and EFP staff suggested modification:

156. Vegetation cover will be removed from the right-of-way and temporary workspace areas during construction, but restored in a manner that allows safe operation, inspection, and maintenance of the pipeline following the completion of construction.

- 3) Take other action deemed more appropriate.

EFP Staff Recommendation: Staff recommends Option B. 2).

C. ALJ Finding 158 – Enbridge suggested language on depth of burial requirements.

- 1) Adopt ALJ Finding 158 as written.
- 2) Adopt Finding 158 with the following Enbridge and EFP staff suggested modification:

158. Installation of the pipeline will occur below ground, generally, at a depth of three (3) to four-and-a-half (4.5) feet, as determined by Enbridge's ability to obtain waivers of the depth of cover requirement for crossing the right-of-way of public drainage systems or roads or cultivated agricultural land, pursuant to Minn. Stat. § 216G.07, Subdivision 2 and 3. Installation of the pipeline will generally not disturb more than the upper 10 feet of earth, which is above the water table for most of the pipeline route. ~~For most of the pipeline route, this depth is above the water table.~~

- 3) Take other action deemed more appropriate.

EFP Staff Recommendation: Staff recommends Option C.2).

D. ALJ Conclusion 48 – Enbridge and EFP suggested modification of the Revised Preferred Route and Alignment presented by Enbridge and Mr. and Mrs. Kezar.

- 1) Adopt ALJ Conclusion 3 as written.
- 2) Adopt Conclusion 483 with the following suggested modification:

48. The Commission should grant a Pipeline Routing Permit for the LSr Project. The permit should authorize construction and operation of the LSr Project within the Revised Preferred Route and Alignment and Route Alternatives, including the changes the area of Tract T-852A requested by Enbridge and the owners of that parcel.

- 3) Take other action deemed more appropriate.

EFP Staff Recommendation: Staff recommends Option D. 2).

E. ALJ Conclusion 54(c) – Enbridge and EFP suggested modification concerning mitigation measures developed for the Berry, Carlson, Gunvalson and Kezar properties.

- 1) Adopt ALJ Conclusion 54(c) as written.
- 2) Adopt Conclusion 54(c) with the following suggested modification:

~~54(c). mitigation measures developed for the Berry, Carlson, Gunvalson and Kezar properties; for the Berry property (line separation reduced to 15' and construction workspace reduced to 80' near the home, installation of exclusion fencing), Carlson property (reduced line separation and temporary workspace near the home and business, as shown on Exhibit 13), and Gunvalson property (apply for permits to relocate a culvert and do so if the necessary permits are granted).~~

- 3) Take other action deemed more appropriate.

EFP Staff Recommendation: Staff recommends Option E. 2).

F. ALJ Conclusion 55) – Enbridge and EFP suggest modifying the conclusion to include

- 1) Adopt ALJ Conclusion 55 as written.
- 2) Adopt Conclusion 55 with the following suggested modification:

55. The Routing Permit should require Enbridge to confer with the Minnesota State Historic Preservation Office prior to commencing construction at “Site 21MA39” to determine what mitigation measures can be made to preserve, avoid, minimize, or mitigate adverse effects to this archeological site. ~~Moreover, the Commission should specify that Enbridge may not excavate at this site until so authorized by the Historical Society.~~

- 3) Take other action deemed more appropriate.

EFP Staff Recommendation: Staff recommends Option F. 2).

G. ALJ Conclusion 57) – Enbridge and EFP suggest modifying the conclusion to include

- 1) Adopt ALJ Conclusion 57 as written.
- 2) Adopt Conclusion 57 with the following suggested modification:

57. The Routing Permit should require Enbridge to assume any additional costs ~~of development that may be the result of installing roads, driveways and utilities that must cross the right-of-way.~~ for the repair or replacement of any roads, driveways and utilities that are disturbed by the construction of the LSr Project.

- 3) Take other action deemed more appropriate.

EFP Staff Recommendation: Staff recommends Option G. 2).

OES EFP Staff Supplemental Findings and Conclusions

A. Roads and Noxious Weeds

- 1) Adopt Supplemental Finding 1.
- 2) Adopt Supplemental Finding 2.
- 3) Take other action deemed more appropriate.

EFP Staff Recommendation: Staff recommends Options A. 1) and 2)

B. Department Of Natural Resources Letter, February 8, 2008

- 1) Adopt Supplemental Finding 3 through 9,

Supplemental Finding 3 – Anthrax DNR’s comment letter noted that most of the recent outbreaks of Anthrax have been in Northwestern Minnesota, and DNR has an interest in such outbreaks because anthrax can also infect deer. EFP staff has confirmed through the webpage maintained by the Board of Animal Health that there have been over 25 reported cases of anthrax in the counties crossed by the LSr Pipeline between 2000 and 2007 and that in a nearby county one case of anthrax has been reported in 2008. EFP staff has requested that Enbridge prepare an anthrax mitigation plan. Enbridge has prepared and efiled an Anthrax Mitigation Plan on May 6, 2008. The Anthrax Mitigation Plan addresses DNR’s concern, as well as others who may have an interest in this limiting the spread of this disease.

Supplemental Finding 4 – Route Width DNR indicated that it believed some flexibility was needed to vary both the center line and route width. Such a mechanism does exist. For example, the MinnCan Pipeline Routing Permit issued by the Commission and introduced as an exhibit (No. 504) in the record of this proceeding does in fact allow for deviations. See permit at part IV and language within this part that states: “Route width variations may be allowed for the permittee to overcome site specific constraints.” The EFP staff proposed Pipeline Routing Permit for the LSr Project contains the same language.

Supplemental Finding 5 – “Site of Outstanding Biodiversity” Between MP 852 and MP 854.5, the proposed pipeline will cross a natural feature, designated a “Site of Outstanding Biodiversity Significance” by the DNR Natural Heritage program. This beach ridge feature contains complex upland and wetland communities, with groundwater emergent zones and mixed with oak savanna and a

newly identified calcareous fen. In order to preserve this privately owned property the Permittee has indicated a willingness to work with the landowner and the Department of Natural Resources to preserve and protect, while minimizing the impact of the pipeline on this Site of Outstanding Biodiversity Significance.

Supplemental Findings 6 – Vegetation along Forested River Corridors. DNR is concerned the lack of vegetation along stream band and rivers where there are multiple pipelines crossings in order to mitigate for losses of wildlife habitat elsewhere along the pipeline and the potential for increased erosion. Enbridge can address some of these concerns and has developed a plan and profile for vegetation replanting along wooded water crossings. However, there may be a conflict between what requirements DNR would prefer and the federal pipeline safety requirements for inspection of the right-of-way. The PUC jurisdiction does not extend to safety related issues. This issued can be better addressed by Enbridge, MNDNR and the Office of Pipeline Safety.

Supplemental Findings 7 – Vegetation along Forested River Corridors DNR also believes that an HDD crossing of the Snake River (MP 843) is appropriate to protect the Snake River because of a downstream long-term research project which involves joint monitoring efforts among several governmental agencies, including the watershed district, DNR, and Natural Resources Conservation Service. DNR believes that if the data is compromised it will hamper efforts to understand impact of the flood control project and limit the ability to develop appropriate mitigation for the flood control project. Enbridge has agreed to a HDD crossing of the Snake River and this is proposed as a condition in the pipeline routing permit at V.N.8.

Supplemental Finding 8 – Horizontal Directional Drilling Horizontal directional drilling (HDD) techniques are often used to minimize impacts to water crossings. However, HDD is not without impact. The primary environmental impact associated with HDD is the inadvertent release of drilling fluids/mud (water bentonite mixture) to the surface during construction (sometimes referred to as a “frac-out”), such as in artesian situations where groundwater emergence creates paths to the surface. Large amounts of drilling mud (bentonite) can reach rivers, wetlands and other sensitive natural resource features unless an appropriate response plan is in place that works under all construction conditions. Enbridge’s application to the PUC contains a Drilling Mud Containment, Response, and Notification Plan. DNR through its permitting process for crossing public lands or waters can also impose

additional standards to insure that the plan will work under all construction conditions.

Supplemental Finding 9 – Construction Environmental Control Plan DNR believes that interagency coordination in the Enbridge project can reduce environmental impacts and further identified a number of environmental management issues that should be addressed. Enbridge has prepared a well defined “Construction Environmental Control Plan.” EFP staff believes that this plan will address many of the issues identified by the DNR letter dated February 8, 2008. The Commission has the authority to revisit this issue if there are problems in implementing the requirements of the plan.

- 2) Take other action deemed more appropriate.

EFP Staff Recommendation: Staff recommends Option B. 1)

C. Minnesota Department of Agriculture Letter, February 8, 2008

- 1) Adopt Supplemental Finding 10 – Section 25 in the Agricultural Mitigation Plan

Supplemental Finding 10 – Section 25 in the Agricultural Mitigation Plan (This finding is supported by ALJ Conclusion 54(f).) Section 25 of the Agricultural Mitigation Plan is not necessary because of the flexibility built into the AMP as a result of the MDA’s experience with the MinnCan Agricultural Impact Mitigation Plan that is reflected in the March 2008 Agricultural Plan.

- 2) Take other action deemed more appropriate.

EFP Staff Recommendation: Staff recommends Option C. 1)

D. Alice and Randy Peterson Letter, December 7, 2007

- 1) Adopt Supplemental Finding 11 – Alice and Randy Peterson Property (MP 839/Tract T-923).

Supplemental Finding 11 – Alice and Randy Peterson Property (MP 839/Tract T-923) The construction workspace on the Peterson property will be “necked down” on non-agricultural lands by Enbridge in order to limit the number of trees that will have to be cut on the Peterson property in order to install the pipeline.

- 2) Adopt addition to Conclusion 54 (c) to address Peterson Property:

54(c). ~~mitigation measures developed for the Berry, Carlson, Gunvalson and Kezar properties;~~ for the Berry property (line separation reduced to 15' and construction workspace reduced to 80' near the home, installation of exclusion fencing), Carlson property (reduced line separation and temporary workspace near the home and business, as shown on Exhibit 13), and Gunvalson property (apply for permits to relocate a culvert and do so if the necessary permits are granted).

- 3) Take other action deemed more appropriate.

EFP Staff Recommendation: Staff recommends Option D. 1) and 2)

Adoption of ALJ Findings of Fact and Conclusions

1. Adopt ALJ Findings of Fact and Conclusions.
2. Adopt as amended the ALJ Findings of Fact and Conclusions.
3. Take some other action deemed more appropriate.

EFP Staff Recommendation: Staff recommends Option 2.

Permit Issuance

1. Grant the OES EFP staff proposed recommended pipeline route permit to Enbridge Pipelines (Southern Lights) L.L.C., for a 108 mile, 20-inch diameter steel, high-pressure (1,260 pounds per square inch gauge) underground crude oil pipeline and associated aboveground facilities (e.g. pump stations, meter stations) originating at the North Dakota border in Kittson County and continuing through the counties of Marshall, Pennington, Red Lake, Polk and terminating at Enbridge's tank farm near Clearbrook in Clearwater County, Minnesota.
2. Grant the OES EFP staff proposed recommended pipeline route permit with modifications to Enbridge Pipelines (Southern Lights) L.L.C, for a 108 mile, 20-inche diameter steel, high-pressure (1,260 pounds per square inch gauge) underground crude oil pipeline and associated aboveground facilities (e.g. pump stations, meter stations) originating at the North Dakota border in Kittson County and continuing through the counties of Marshall, Pennington, Red Lake, Polk and terminating at Enbridge's tank farm in near Clearbrook in Clearwater County, Minnesota.

EFP Staff Recommendation: Staff recommends Option 1.